

The Influence of Determinants on Capital Structure Decision of Select Food Processing Firms in India

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ABSTRACT

Capital structure is one of the most important areas of financial decision making. Identifying the right proportion of debt and equity of capital structure has been much difficult to bring favorable results for the organization. This study is attempted to analyze the determinants of capital structure of select food processing firms in India. The study is based on secondary data. Five food processing firms were taken for the study period of 2013-2014 to 2017-2018. Correlation, multiple regression and ANOVA tools has been applied to analyze the objective. The study concludes that the determinants of food processing firms are moderately influencing the capital structure.

1. Introduction

Decision concerning capital structure is important for a firm because of the effective design of capital, the financial risk borne by shareholders, and the return on equity and its effect on the value of firm. Similarly, the choice of appropriate source of fund for capital structure is one of the major policy decisions taken by a business enterprise. Generally, the term "capital structure" represents the proportionate relationship between the different forms of financing. However, sometimes a distinction is drawn between financial structure and capital structure. The term "financial structure" refers to the entire capital and liability side of the balance sheet. On the other hand, the term "capital structure" refers to the composition of the long- term funds, which consist of equity capital, preference capital, reserves and surplus, debentures, borrowings from banks, financial institutions etc. Capital structure decisions have great impact on the firm's financial performance. Exactly how firms choose the amount of debt and equity in their capital structures remains an enigma. Generally, it consists of debt and equity used to finance the firm. The effective financing decision determines the optimal mix of debt and equity, with respect to the relative numbers of shareholders and debt holders, and the distribution of investment proceeds between dividends, interest and capital gains. Capital structure is the combination of debt and equity that finance the organization's strategic plan. The effective strategic management of capital structure ensures the availability of required fund to finance the future growth and enhance the financial performance. The debt equity relationship is depends upon the nature of industries involved like company's line of business and its development. A company is said to be highly leveraged, if it includes the maximum debt source of finance in its capital structure, which results, the company find its freedom of action restricted by its creditors and may have its profitability affected with the payment of high interest costs. Similarly, one of the basic issues relating to the capital structure decision is whether change in the financing mix affects the valuation of a firm and cost of capital. Therefore, the cost of capital is considered as an important determinant of capital structure. The cost of

capital helps the management of an organization move towards its target capital structure, provided there exists relationship between the two. In making up its capital structure over a period of time, a firm will adopt that line of financing during a given time which involves minimum cost to the firm.

2. Objectives of the study

To analyze the determinants of capital structure of select food processing firms in India.

3. Research methodology

Source of Data

The study is based on the secondary data. The sources of data have been collected from CMIE and annual reports of food processing firms.

Period of the Study

The study period covers a five financial year from 2013-2014 to 2017-2018. Based on data availability the study period is limited to five years.

Sampling

Five food processing firms were taken for the study. Top five firms were selected based on the net profit.

Tools for Analysis

Correlation analysis was used to examine the relationship between dependent and independent variables. Regression analysis was used to find out the effect of determinants of capital structure on debt equity ratio of select food processing firms in India.

Selected food processing firms are

1. Nestle India Ltd.
2. Britannia Industries Ltd.
3. K R B L Ltd.
4. Varun Beverages Ltd.

5. Manpasand Beverages Ltd.

the debt ratios whereas tangibility, size and growth do not appear to be significantly related to the debt ratios. The author concluded that Pecking order theory is more relevant to hotel and restaurant companies in Sri Lankan.

Dependent and Independent Variables Are:

Dependent variable

- Debt equity ratio = Debt/Equity

Independent variables

- Current ratio = Current Asset / Current Liabilities
- Profitability = EBIT / Total Assets
- Non debt tax shield (NDTS)= Depreciation / Total Assets
- Tangibility = net fixed Assets / Total Assets

4. Review of literature

- Avanishkumarshukla(2012)** made a research on “**capital structure determinants: critical review for selected Indian companies**”. This study is conducted with an OLS (Ordinary Least Square) regression method, to identify major determinants of capital structure. The determinants are selected with static trade-off theory and pecking order theory. For conducting the present study, annual reports from 55 companies in Different sectors, listed in stock exchange in India, is collected for last 6 years i.e. from 2006 to 2011. A total number of 330 observations were made. As per the result, it is clear that agency cost is negative but tax rate is positive while non-debt tax shields are again negative on leverage ratio. Bankruptcy cost and profitability are irrelevant in the determination of leverage ratio while firm size is positive. Collateral value of the asset has positive influence on total debt ratio only. The researcher strongly believes that managers' personal attitude does have significant impact over the capital structure and it cannot be analyse easily.
- Ajanthan (2013)** studied on “**Determinants of Capital Structure: Evidence from Hotel and Restaurant Companies in Sri Lanka**”. The aim of this study is to find out the factors that affect the capital structure of hotels and restaurant of the Sri Lankan companies. The investigation is performed for a sample of 15 companies listed on the Colombo Stock Exchange during 2008-2012. The results reveals that only profitability is negatively related to

- Dr. kalpatarubandopadhyay (2013)** made an attempt on “**capital structure of growth companies with reference to Indian software industry**”. This paper seeks to find out the reason behind almost debt-free capital structure and also demonstrates how liquidity management and risk management could take a pivotal role to determine the capital structure of these growth companies. It was observed that those companies were not aggressive enough to catch up growth by setting up infrastructure with the help of debt. These companies waited the cash to generate and utilize the investable cash into infrastructure. This way they managed the risk profile of the firm at lower level. it is further observed that the Indian software companies follow pecking order theory and as such growth is financed retained earnings as far as possible and the firms expecting high future growth should use a greater amount of equity in their capital structure.
- Thian Cheng Lim conduct (2012)** a study on “**Determinants of capital structure empirical evidence from financial Services listed firms in china**”. Using a relative regression of accounting data for 36 A-share financial listed companies over the years 2005-2009, an empirical study on determinants of capital structure in financial industry is conducted. The results show that profitability, firm size, non-debt tax shields, earnings volatility and non-circulating shares are significant influence factors in financial sector. Moreover, firm size is positively related to the corporate leverage ratio. It is also found that Chinese institutional characteristic affects the capital choice decision. While it confirmed that capital structure determinant of financial firms are similar to other industry, the largely state ownerships do affect capital structure choices.

5. Analysis and interpretation

Descriptive Statistics

	AVG	SD	VAR	Kurt	Skew	Mini	Maxi
DER	1.202	1.992	3.969	4.422	2.088	0.008	4.716
CR	1.690	0.804	0.646	0.959	0.049	0.594	2.804
PROF	0.277	0.132	0.017	-3.048	0.261	0.150	0.417
NDTS	0.045	0.020	0.001	-0.927	-0.388	0.018	0.068
TANG	0.386	0.165	0.027	-0.268	0.773	0.230	0.630

Source: Computed

DER = Debt Equity Ratio

CR = Current Ratio

PROF = Profitability

TANG = Tangibility

NDTS = Non Debt Tax Shield

The above table reveals that determinants of capital structure of food processing firms explained its debt equity ratio is gained from 0.008 to 4.716 with the average of 1.202. The standard deviation of food processing firm is 1.992 and variance showed 3.969. Current ratio is gained from 0.594 to 2.804 with the average of 1.690. The standard deviation of food processing firm is 0.804 and variance showed 0.646. Profitability is gained from 0.150 to 0.417 with the average of 0.277. The standard deviation of food processing firm is 0.132

and variance showed 0.017. NDTs is gained from 0.018 to 0.068 with the average of 0.045. The standard deviation of food processing firm is 0.020 and variance showed 0.001. Tangibility of food processing firm increased from 0.230 to 0.630 with the average of 0.386. The standard deviation is 0.165 and variance is 0.027. Further the skewness showed positive value in DER, CR, PROFIT, TANG and negative value in NDTs. The kurtosis showed positive value in DER, and CR and showed negative value in PROFIT, TANG, and NDTs.

Correlation

	DER	CR	PROF	NDTS	TANG
DER	1	-.409*	-.307	.124	.581**
CR		1	-.173	.186	-.284
PROF			1	-.200	-.240
NDTS				1	.595**
TANG					1

Source: Computed

* 5% Level of significance

** 1% Level of Significance

The above table displays that the relationship between the determinants of capital structure. The debt equity ratio is shows negative significant relationship with current ratio with 5% level

and shows positive significant relationship with tangibility with 1% level. There exists a positive significant relationship between Non debt tax shield and tangibility with 1%level.

Multiple Regression

Model	R	R Square	Adjusted R Square	Std. Error	Durbin-Watson
1	.701	.491	.389	1.84797	1.053

Source: Computed

a. Predictors: (Constant), tang, profit, cr, ndts

b. Dependent Variable: debt

Model	Unstandardized Coefficients		Stand Coeff	t	Sig.
	B	Std. Error	Beta		
(Constant)					
DER	1.098	1.771		.620	.542
CR	-.515	.412		-1.250	.226
PROF	-3.937	2.638	-.242	-1.493	.151
NDTS	-28.705	27.672	-.254	-1.037	.312
	8.693	3.498	-.232	2.485	.022
			.590		

Source: Computed

a. Dependent Variable: debt

Multiple correlation coefficient was found out to find the degree of relationship between all independent variables and dependent variable. The R value is found to be (0.701) it shows that there is high correlation between debt equity and independent variables. The R square value is found to be

49.1% which shows that there is 49.1% variation in the dependent variable attributable to the independent variables. The Durbin Watson value was found to be 1.053 which shows there is no auto correlation between variables.

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	65.884	4	16.471	4.823	.007
Residual	68.300	20	3.415		
Total	134.184	24			

Source: Computed

a. Predictors: (Constant), tang, profit, cr, ndts

b. Dependent Variable: debt

The ANOVA result shows that the F statistics value is 4.823. This shows that there is a significant difference in the selected independent variables.

6. Conclusion

An optimal capital structure is usually defined as one that will maximize shareholder's wealth by minimize the firm's cost of capital. Capital structure decisions have great impact on the firm's financial performance. In the recent time, financial manager always plans an optimum capital structure for his company to obtain the higher market value per share. Thus, the financing decisions have no effect on firm value, as it is the residue of the more important investment decisions. Therefore, firms, managers, and investors, devote more time and

resources to making the financing decisions about dividends and capital structure. In an attempt to analyse capital structure and its determinants of select food processing firms in India. Over a five year period from 2013-14 to 2017- 2018, the present study reveals that the debt equity ratio is shows negative significant relationship with current ratio with 5% level and shows positive significant relationship with tangibility with 1% level. There exists a positive significant relationship between Non debt tax shield and tangibility with 1%level. Multiple regression results shows that 49.1% variation in the dependent variable attributable to the independent variables. It is concluded that the financial manager should consider the capital structure determinants before making a financial decision.

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